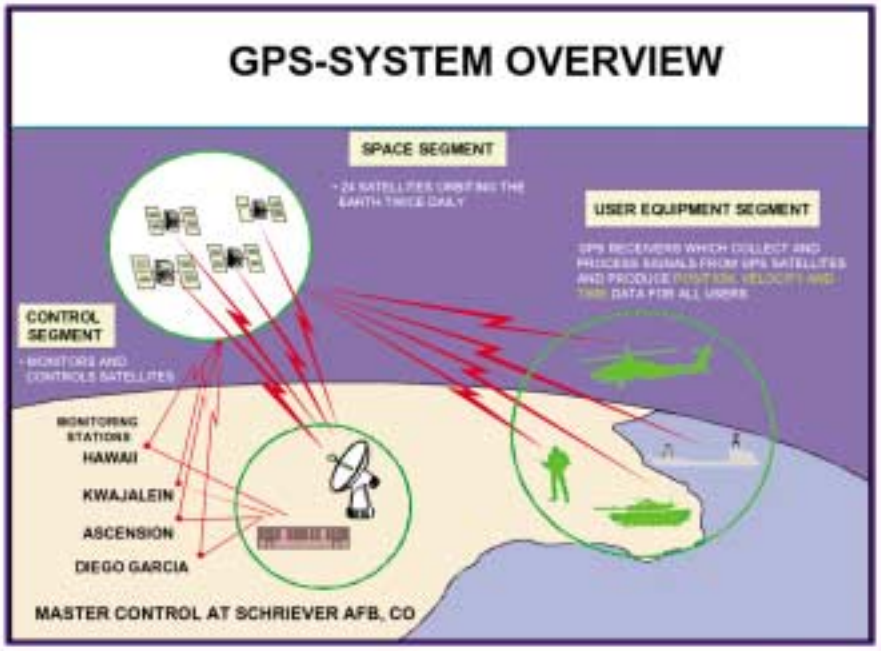
Global Positioning System (GPS)



MISSION

Provide accurate, continuous, all-weather, common-grid, worldwide navigation, positioning, velocity and timing information to land, sea, air, and space-based users.

DESCRIPTION AND SPECIFICATIONS

The Global Positioning System (GPS) is a joint service program, led by the Air Force. GPS is a space-based navigation system that distributes positioning, velocity, and timing data. It has three segments: a space segment (nominally 24 satellites), a ground control segment, and a user equipment segment. User equipment consists of receivers configured for handheld use, ground, aircraft and watercraft applications. Military GPS receivers have precise positioning service capabilities that provide enhanced accuracy and signal protection over commercial units. The primary GPS receiver in the Army today is the Precision Lightweight GPS Receiver (PLGR) with more than 83,000 in hand-held, installed and integrated applications. The Army represents over 80% of the Department of Defense requirement for user equipment.

FOREIGN COUNTERPART

Russia: GLONASS; Europe: GALILEO (planned for initial testing in FY04).

FOREIGN MILITARY SALES

A variety of PPS-capable GPS receivers have been sold to 28 authorized countries.

PROGRAM STATUS

- **System Accuracy:** By Presidential direction on May 2000, the intentional degradation of the Standard Position Service (SPS) signal was set to zero, resulting in greater accuracy for civil SPS users.
- **PLGR:** A major field reprogramming campaign to introduce upgraded PLGR software was completed. A contract was awarded to extend the PLGR warranty period to 10 years.
- **Standalone Air GPS Receiver (SAGR):** The transfer from interim use in overseas aircraft to CONUS aircraft continues.
- **Cargo Utility GPS Receiver (CUGR):** Installation to the UH-1 aircraft fleet was suspended at 371 of 783 planned due to curtailment of UH-1 operations.

PROJECTED ACTIVITIES

Fielding

- Supplemental PLGR fielding will support Army Digitization and Transformation through FY04.
- Installation of CUGR to UH-1 helicopters continues through FY01.
- CUGR may replace SAGR on the OH-58 A/C aircraft fleet beginning in FY01.

Modernization

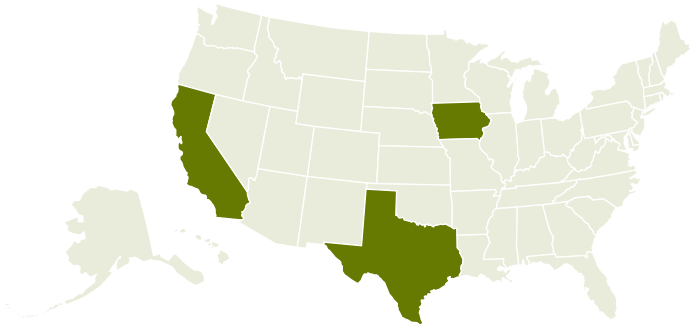
- The Program Research Development Announcement (PRDA) concept is being used to develop new user equipment designs to enhance military receiver performance while preserving uninterrupted civil access to the SPS signal; PRDA contracts will further Defense Advanced GPS Receiver (DAGR) and GPS Receiver Applications Module (GRAM) products.
- DAGR and GRAM will replace most Army GPS receivers during the FY03–11 timeframe.
- Protection and Denial technologies are being developed under the Navigation Warfare program to address GPS vulnerabilities and present GPS modernization solutions.

Horizontal Technology Insertion

- DAGR is now designated an Horizontal Technology Integration initiative; DAGR will replace most PLGRs.
- Two other products, GRAM and GPS Inertial Navigation System (GPS/INS), will be submitted for this designation; GRAM and GPS/INS will integrate new GPS technology to a broad range of host platforms and vehicles.
- The GPS tactical operational requirements document projects the total number of receivers required during this timeframe to exceed 650,000.

PRIME CONTRACTORS

Rockwell Collins (Cedar Rapids, IA); Trimble Navigation (Sunnyvale, CA; Austin, TX)



* See appendix for list of subcontractors